

Module 4 Quiz Review**Section 4:1:1 Write rules for sequences.**

Write an algebraic expression describing the pattern below. Use your expression to find the 312th term in the sequence. (4 points each)

1)

Term #	1	2	3	4	5	...	312
Sequence	11	14	17	20	23	...	

2)

Term #	1	2	3	4	5	...	312
Sequence	2	9	16	23	30	...	

3)

Term #	1	2	3	4	5	...	312
Sequence	24	29	34	39	44	...	

4)

Term #	1	2	3	4	5	...	312
Sequence	2	8	14	20	26	...	

Section 4:1:2 Apply the triangle inequality rule.

Tell whether it is possible to construct a triangle with the given side lengths. *Explain and prove why it is possible or not possible for each problem!* (3 points)

5) 3 cm, 3 cm, 6 cm

6) 2 in., 8 in., 7 in.

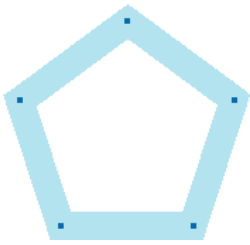
7) 9m, 12m, 22m

8) 15 ft, 15 ft, 15 ft

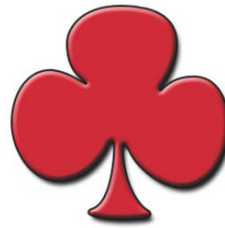
4:2:1 Rotational Symmetry

Tell whether each figure appears to have rotational symmetry. If the figure has rotational symmetry, give the minimum rotational symmetry and tell what other rotational symmetries it has. (4 points each)

9)



10)



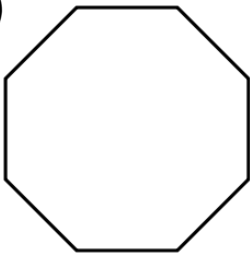
Minimum Rotational Symmetry:

Other Symmetries:

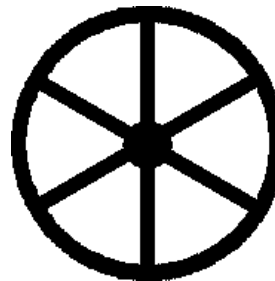
Minimum Rotational Symmetry:

Other Symmetries:

11)



12)



Minimum Rotational Symmetry:

Other Symmetries:

Minimum Rotational Symmetry:

Other Symmetries:

Section 4:2:2 Recognize rational and irrational numbers.

Tell whether each number is rational or irrational. EXPLAIN your answer. (2 points each)

13) 9.74

14) $22\overline{37}$

15) $16\frac{2}{7}$

16) 29

17) $\sqrt{64}$

18) $\sqrt{39}$

Section 4:3:1 Fractions.

Add, subtract, multiply or divide. *You MAY NOT use a calculator for Fraction Problems. Show all work and make sure your answers are in simplest form!!* (3 points each)

19) $9\frac{7}{8} + 2\frac{1}{6}$

20) $2\frac{2}{3} + \frac{3}{5}$

21) $19\frac{3}{8} - 4\frac{3}{4}$

22) $7\frac{5}{6} - 2\frac{3}{4}$

23) $\frac{1}{4} \cdot 2\frac{1}{5}$

24) $5\frac{1}{2} \cdot 2\frac{4}{5}$

25) $12 \div \frac{2}{3}$

26) $2\frac{1}{3} \div 3\frac{1}{2}$